INTESTINE INFECTIONS:

TYPHOID FEVER:

They include - tuberculosis, typhoid, crohn disease, peptic ulcer

Typhoid - caused by salmonella typhi & paratyphi.
- colonizes to the gall bladder.

Mode of transmission - person to person contact.
Ingestion of contaminated food - water

Incubation period - 7-14 days.

PATHOGENESIS:

(They can survive in gastric Acid of stomach)

Events →
During which asymptomatic period
Attach to the microvilli
penetrate the ileal mucosa.
↓
Salmonella phagocytosed by the macrophages (peyer's patches)
↓
multiply within the macrophages are carried to the mesenteric lymph nodes

- During bacteremia → are seeded in many organs.
- Bile is good culture Medium for the typhoid bacillus, multiply in the gallbladder.

→ Peyer patches and lymphoid follicles - bacilli located in them.
↓
Oval typhoid ulcers.

MORPHOLOGY:

Lesions → intestinal
→ extraintestinal

GROSS:

Location → terminal ileum.
App → Hyperplasia & necrosis of mucosa over Peyer's Patch minor produce typhoid ulcers.

Characteristics of typhoid ulcer:
Orientation: The ulcers are oval and oriented along the long Axis of bowel
Base of the ulcer → black due to sloughed mucosa.
Margins → Raised.

MICROSCOPY: Oval ulcers.
Lamina propria – Macrophages, lymphocyte, plasma cells, Neutrophil

Extraintestinal lesions:
→ Typhoid nodule → formation of focal granuloma – typhoid nodules
Aggt of Macrophages
→ Abdominal muscles → Zenker degeneration → necrosis of SkM.
→ Gall bladder → Typhoid cholecystitis.
→ Mesenteric lymph node.

CF → bloating, nausea, vomiting, diarrhea, AP, Rose spots, spleen.
Complications → Perforation of ulcer, Hemorrhage from the ulcer., carrier, etc.
LB test → Blood culture, widal test, TLC, urine culture

SHIGELLOSIS – BACILLARY DYSENTRY:

Ulcerating lesion of large intestine.
necrotizing infection of the distal small bowel colon caused by shigella
most common – bloody diarrhea.
→ shigella – unencapsulated, non motile, AGNB,
Mode of infection → Human are the only natural reservoir.
MOT → Ingestion.

PATHOGENESIS: most virulent → (Resistant to Action of Acid in the stomach)
penetrate Intestinal Mucosa taken up by M cells
Phagocyted by Macrophages
↓
Inflammatory Rn → loosens the intracellular barrier of damage surface epithelium leading to superficial ulcer.
↓
Produce toxin

MORPHOLOGY:

Most prominent in the left colon mainly Rectosigmoid Area
Lesions are continuous & diffuse.

→ ulcer → edema, ulceration, friable granular, hemorrhagic mucosa.
⊥ to the long Axis of the colon.

MICROSCOPY:

Early stage → small Aphthous ulcer,
Adv stage → Necrosis of epithelial cell covered by purulent exudate.
ulcer may extend into muscularis mucosae.

CP → Bacillary dysentery is the most common cause of bloody diarrhea.
Complication → Reiter syndrome
Hemolytic uremic syndrome (HUS) due to toxins

AMEBIASIS:

Infection caused by the protozoan Entamoeba histolytica.

3 stages:

1) Trophozoite stage → Spherical or oval
stained by PAS.

2) Precyst stage

3) Cyst stage: infecting stage

Source of infection → Human are only known Reservoir for E. histolytica.

PATHOGENESIS: